

## Some Common Tomato Problems

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Are you having problems growing well-formed, blemish-free tomatoes? Many tomato problems, including leaf spots and fruit rots, are caused by pathogens such as fungi, bacteria, or viruses.

Sometimes the problem isn't caused by an organism at all, but is due to other non-pathogenic factors. These types of problems, termed physiological disorders, are usually promoted by a poor growing environment and inadequate crop management.

Fortunately, you can reduce or eliminate many problems by improving the plant growing environment and your gardening skills. The following list of physiological disorders represent some of the more common tomato problems.

### **Blossom-end Rot**

If the symptoms are large, round, dry, brown to black and often sunken leathery areas at the blossom end of the fruit, the problem may be a condition called blossom-end rot.

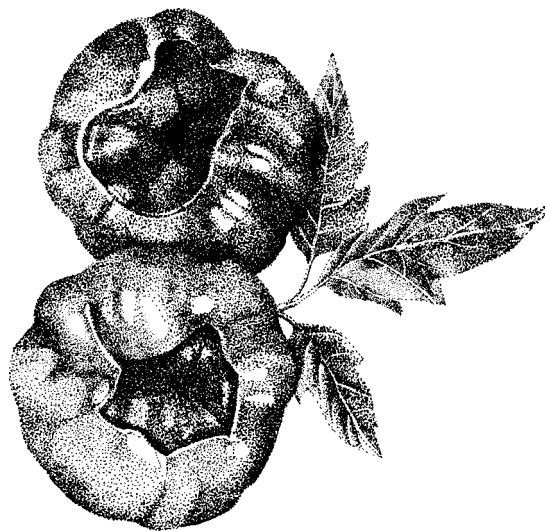
A common, but seldom serious, disorder, blossom-end rot is caused by a lack of calcium in the developing fruits. This can occur even when there is an ample supply of calcium in the soil.

Usually, the first formed fruits are the most seriously affected. The disorder starts at the blossom end of green fruit and first appears as a dark green, water-soaked spot. It may enlarge to cover half the tomato.

Environmental or cultural factors are usually responsible for the onset of this condition. Extreme fluctuations in soil moisture and extended periods of extremely wet weather coupled with high humidity can encourage blossom-end rot.

Rapid vine growth early in the season, often promoted by high rates of nitrogen, can divert calcium from the developing fruits and bring on this condition.

Poor root growth also can reduce water and calcium uptake, encouraging blossom-end rot. It can be caused by cultivating too deeply around the plant or by planting seedlings too early in the season in cold soils.



***Blossom-end Rot***

The following guidelines should help you prevent blossom-end rot as well as other problems.

**Improve soil moisture.** Maintain even soil moisture levels by applying a mulch, such as black plastic, straw, or newspapers. Mulches can help moderate soil temperature and moisture, reduce pest problems, and keep the fruit clean.

Use black plastic mulch early in the season can help warm our cold spring soils. Apply most other mulches over moist soils later in the season after the soil warms up.

Water regularly and deeply, avoiding frequent, shallow watering. One inch of water a week is generally adequate for most situations. Locate gardens in areas with well-drained, fertile soil that is neither droughty nor excessively wet.

**Fertilize moderately.** Maintain good overall soil nutrient levels through good fertility management and regular soil testing. Avoid using excessive amounts of fertilizer, particularly those high in nitrogen. Maintain adequate soil phosphorous levels, especially at planting, and a soil pH between 6.5-6.8. Your local UNH Cooperative Extension office has soil test kits available.

**Cultivate carefully.** Avoid excessive cultivation around plants. As a general rule, cultivate no deeper than one inch. Be careful when you work closely around the plant.

### Cracking

Tomatoes can often start to crack during warm, rainy periods, particularly after a lengthy dry spell. The fruits crack by simply expanding too fast, usually when they are fully-size and beginning to color. To avoid cracking problems, select resistant varieties and keep soil moisture as even as possible. Avoid excessive dryness or wetness throughout the growing season.

### Catfacing

This is another kind of cracking or scarring. Tomatoes develop unusual, and sometimes bizarre, swellings and streaks of scar tissue, caused by abnormal development of the tomato flower at blossom time. Cool weather is believed to cause the flower problems.

### Blossom Drop

In some seasons, many of the earliest blooms may simply fall off without setting fruit. This is usually the result of cool night temperatures below 55°F. Blossom drop also can occur later in the season when day temperatures

are consistently above 90°F or when night temperatures remain above 75°F.

### Leaf Curl

Leaf curl or "leaf roll" is very common, but doesn't affect fruit production. It usually occurs after periods of heavy rains, when the soil is very wet. Older leaves are most severely affected, rolling up until their edges touch. Some varieties are more prone to leaf roll than others. Plant tomatoes in well drained soil to avoid this problem.

### Sunscald

When green or ripening tomatoes get too much sun exposure, the result is often sunscald. The first symptom is a yellowish-white patch that appears on the side of the fruit facing the sun. The area will enlarge as the fruit ripens and become grayish-white.

To guard against sunscald, maintain adequate foliage on the plants to shade the fruits. Grow plants in tomato cages, control foliage diseases, and avoid over pruning to encourage plants to develop and retain lots of protective foliage.

### Remember . . .

Tomato disorders are seldom a serious problem, but they can frustrate the grower. By following the above guidelines and planting recommended varieties, you should be able to reduce your tomato growing problems and produce unblemished, delicious-looking fruits.

For more information about vegetable gardening, including recommended varieties, contact the UNH Cooperative Extension office nearest you.

*Credits: Illustration by Karen Holman, Extension Master Gardener. Reviewed by Cheryl Smith, Extension Specialist, Plant Health*